

# **State of California**

## **9-1-1 OPERATIONS MANUAL**

### **CHAPTER IV - WIRELESS 9-1-1 SERVICES**

#### **Introduction**

In California, the traditional telephone network (wire-based service) provides E9-1-1 service. In that network, the telephone system properly routes 9-1-1 calls to the appropriate response agency serving the location of the calling party. Additionally, the call taker display provides Automatic Number Identification (ANI) and Automatic Location Identification (ALI). The system also displays the appropriate law enforcement, fire, and emergency medical response agencies.

When wireless cellular telephones were initially introduced in California, their predominant use was in automobiles. As a result, all 9-1-1 cellular calls were routed to the nearest California Highway Patrol (CHP) Communications Center. Because of the portability of cellular telephones, ANI and ALI are not provided to CHP call takers. The CHP has recently made upgrades to their phone equipment that displays the callback number using the service "Caller ID" on approximately seventy percent of the wireless 9-1-1 calls received. However, call takers must question the caller to determine their location.

If the reported incident is not under the jurisdiction of the CHP, the call is transferred across the public switched telephone network (PSTN) to the appropriate law enforcement, fire or emergency medical services agency.

#### **Definitions**

- AB 1263 (Assembly Bill 1263) – A bill passed by the California legislature and signed by Governor Gray Davis in 2000 that becomes effective January 1, 2001. AB 1263 allows public safety answer points (PSAPs) outside of the CHP to answer wireless 9-1-1 calls directly from cell sectors that do not cover a CHP jurisdiction.
- Cell Sector – Refers to one of the antennas existing on a cell site tower. Most cell sites have 3 sectors (or antennas). Cell sites having only one antenna providing 360 degree coverage are referred to as omni-directional sites.
- Cell Site – The antenna array, base station equipment, and supporting structure (usually a tower) that is the local point of interface between a wireless phone device and a wireless network.
- Cellular – Refers to wireless telephone service in the 800 and 900 MHz band of radio spectrum allotted by the Federal Communications Commission (FCC)
- CHP PSAP – One of twenty-four CHP public safety answering points (PSAPs) statewide that, prior to January 2001, were legally responsible for directly answering all wireless 9-1-1 calls received at cell sites in California.
- CMRS (Commercial Mobile Radio Service) – A category of wireless telephone service regulated by the FCC. It includes both cellular and PCS telephone service.

- Direct-Routing – Refers to having a wireless carrier route their subscriber’s 9-1-1 calls directly to a local PSAP, as opposed to having those calls transferred by a CHP PSAP.
- FCC Report and Order 94-102 – An order released by the Federal Communications Commission (FCC) in 1996 and subsequent orders issued for clarification or modification of the original rule making. Phase I of the Order requires wireless carriers to deliver the calling party telephone number (a.k.a. ANI) and the location of the cell site or sector (a.k.a. P-ANI) of the caller. Phase II requires wireless carriers to deliver a more precise location of the caller (within 50 – 100 meters). Both phases apply to CMRS providers subject to varying conditions and time frames.
- Local PSAP – Refers to all public safety answering points (PSAPs) under the control of local public safety agencies.
- PCS (Personal Communications Services) – Refers to wireless telephone service in the 1.9 and 2.0 GHz band of radio spectrum allotted by the FCC for CMRS service.
- Primary PSAP – A PSAP that answers 9-1-1 calls directly (unscreened) from the public. Law enforcement agencies are typically primary PSAPs for landline 9-1-1 calls. The CHP is the predominant primary PSAP agency for wireless 9-1-1 calls placed in California.
- Secondary PSAP – A PSAP that receives 9-1-1 calls that are transferred from other agencies (primary PSAPs). Fire and Emergency Medical Service (EMS) PSAPs are typically secondary PSAPs.
- State 9-1-1 – Abbreviation for State of California 9-1-1 Program Office, an organization within the State of California, Department of General Services, Telecommunications Division, responsible for administering the 9-1-1 Program in California.
- Wireless 9-1-1 – Refers to a 9-1-1 call made from a cellular, PCS, or other commercial mobile radio services (CMRS) system.
- Wireless E9-1-1 – Refers to the delivery of a wireless 9-1-1 call made pursuant to FCC Report and Order 94-102. This includes the delivery of a callback number, location, and routing of the call to the appropriate PSAP based on the caller’s location.

### **State Policy (Wireless 9-1-1)**

Chapter 1 It is the policy of the State of California 9-1-1 Program Office to promote the most efficient and effective wireless 9-1-1 service feasible and to provide citizens of California with expedient access to emergency services irrespective of the type of device from which a 9-1-1 call is made. The 9-1-1 Program Office will continue to strive to improve wireless 9-1-1 services on a statewide basis and will provide guidance as needed to California PSAPs that answer wireless 9-1-1 calls.

### **FCC 94-102**

The State 9-1-1 Program Office is developing a plan to implement wireless E9-1-1 service (a.k.a. “Enhanced Wireless 9-1-1” or “Wireless E9-1-1”) pursuant to Federal Communications Commission (FCC) Report and Order 94-102. Phase I of the Order will

provide the automatic number identification (ANI) and cell site location information. Phase II requires wireless carriers to provide more accurate location information. The implementation of FCC mandated Phase I/II technologies is targeted to begin in California approximately October, 2001. Full statewide implementation is likely to take several years. The State 9-1-1 Program Office will apprise PSAPs periodically regarding the status of the wireless E9-1-1 implementation plan. The Program will also provide assistance in preparing PSAPs for wireless E9-1-1 as required.

### **Direct Call Routing to Local PSAPs**

The passage of AB 1263, which takes effect on January 1, 2001, allows for routing of wireless 9-1-1 calls directly to local public safety answering points (PSAP) under specific conditions. In addition to jurisdictional considerations, those conditions include agreement among the California Highway Patrol (CHP), the Department of General Services (DGS) 9-1-1 Program Office, and the affected local agency, that alternate routing is economically and technologically feasible and will benefit public safety. The bill further provides that routing decisions will be made in consultation with wireless carriers, providers of 9-1-1 selective routing service, and local law enforcement officials.

Prior to the establishment of wireless E9-1-1 service, wireless carriers will be asked to route

9-1-1 calls through the public switched telephone network (PSTN) to designated 7-digit emergency lines at the local PSAP. With the appropriate lines and equipment, PSAPs can expect to receive "Caller ID" with most wireless 9-1-1 calls. However, this routing method will not provide location information.

### **Direct Call Routing Implementation Procedures**

The State 9-1-1 Program Office working in conjunction with the CHP has developed the following rules and procedures for the orderly and effective implementation of direct call routing to local PSAPS interested in receiving wireless 9-1-1 calls that originate within their jurisdiction.

1. Wireless 9-1-1 calls will be considered for direct-routing to local PSAPs only when there is a written agreement to do so between the authorized representative of the local PSAP and authorized representative of the CHP.
2. Local PSAPs shall not request wireless carriers to direct-route wireless 9-1-1 calls to their call centers. Call routing changes shall only be submitted to wireless carriers by the CHP, after approval is received from the local PSAP and State 9-1-1. Wireless carriers will be advised not to initiate 9-1-1 call routing changes at the request of local agencies.
3. Wireless 9-1-1 calls are to be direct-routed only to the CHP and those local PSAPs that serve as a primary PSAP.
4. Local PSAPs interested in assuming responsibility for wireless 9-1-1 calls that originate within their respective jurisdictions shall make a written request to: CHP, Telecommunications Section, 860 Stillwater Road, West Sacramento, CA 95605 Attention: 9-1-1 Program Manager.

5. CHP will notify State 9-1-1 of all requests received. State 9-1-1 will notify CHP of all requests or inquiries from local PSAPs.
6. CHP and local agencies, working with wireless carriers, shall identify sites that provide coverage within the jurisdictional boundaries of the local PSAP. CHP will identify and retain responsibility for cell sites that provide coverage on freeways, county roads, and unincorporated areas within its jurisdiction. CHP will advise the State 9-1-1 Program Office of changes in cell site/sector call routing agreed to by all stakeholders.
7. Impacted wireless carriers and local exchange carriers shall be consulted to identify any potential problem areas and/or costs associated with the direct-routing of wireless 9-1-1 calls to local PSAPs.
8. Each agency involved shall designate an authorized representative for negotiation and approval of routing agreements.
9. Specific wireless 9-1-1 implementation plans shall be coordinated between the CHP, local PSAP, and wireless carriers. Each plan should include a process for cutover to the local PSAP, routing changes, and termination of direct routing to the local PSAP if it proves not to be in the best interest of the public. Agencies may decide to do a slash cut-over or a phased implementation (cell sector by cell sector).
10. CHP and local PSAP shall develop local operating procedures to facilitate effective call handling, call transfer, or relay of information between communications centers.
11. CHP and State 9-1-1 will work with wireless carriers, County Coordinators, and local PSAPs to develop procedures for release of subscriber information in emergency situations, notification of misrouted cell sites/sectors, and requests for routing changes.
12. Wireless 9-1-1 calls shall be answered by local PSAPs on designated emergency 7-digit telephone lines.
13. All wireless 9-1-1 calls direct-routed to local PSAPs will utilize the public switched telephone network (PSTN). Wireless carriers will be directed to route 9-1-1 calls received at identified cell sites to the local agency by translating the digits 9-1-1 to the designated telephone number at the appropriate local PSAP.
14. State 9-1-1 will consider reimbursements for the appropriate number of dedicated 7-digit lines needed to answer wireless 9-1-1 calls. Agencies shall coordinate with local exchange carriers to install these lines and may submit for reimbursements via a State Form TD-285. Pre-approval from State 9-1-1 is required to attain funding.
15. All 7-digit lines funded by State 9-1-1 under this Chapter shall be used exclusively for the purpose of answering wireless 9-1-1 calls.

16. State 9-1-1 funding will not be considered for additional staff needed to answer wireless 9-1-1 calls.
17. Wireless 9-1-1 call handling, in and of itself, will not be considered as a justification for additional equipment, system upgrades, or a telephone system replacement.
18. PSAPs with the "Caller ID" feature available on their telephone equipment may request Caller ID on designated lines for wireless 9-1-1 service. The State will consider reimbursements for the Caller ID feature via the TD-285 process. Pre-approval from State 9-1-1 is required to attain funding.